Serial No. 09/595,005 [redacted] RD-27,442/USA

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Marissa Hartle 10/31/01

Signature (Date of Signature)

#5
Plunkett
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of	:	
James Norman Cawse et al.	:	Group Art Unit: 1631
Serial No. 09/595, 005	:	Examiner: A. Hartter
Filed: June 16, 2000	:	Response to Paper No. 3

For: HIGH THROUGHPUT SCREENING METHOD AND SYSTEM

REPLY TO EXAMINER'S RESTRICTION REQUIREMENT AND NOTICE OF DRAFTSPERSON

Assistant Commissioner for Patents,
Washington, DC 20231

Sir:

In response to the Office Action dated September 25, 2001, in which a restriction requirement was made, the applicant elects without traverse the claims contained within **Category I-Species A** for synthesizing a population of entities. Please assess the fee for a one (1) month extension of time as provided by 37 CFR §1.136(a) and 37 CFR §1.17(a), to Applicant's Deposit Account, No. 07-0868.

Included with this response are the formal drawings of Figures 1-3, with the corrections requested by the Draftsperson.

Respectfully submitted,

Bey P. Patel
Reg. No. 48,420

November 1, 2001

General Electric Company
Corporate Research & Development Center
Niskayuna, NY 12309

HIGH THROUGHPUT SCREENING METHOD AND SYSTEM

ABSTRACT OF THE DISCLOSURE

In an experimental design strategy for evaluating systems with complex physical, chemical and structural requirements, a first population of entities is synthesized, a property of each of the entities can be detected by a high throughput screening (HTS) method and a genetic algorithm based on the property of the entities is executed to identify a second population of entities. A system for screening constructs to determine a problem solution includes a generator to provide a binary string representing a random first population of the constructs, a combinatorial reactor to synthesize the first population of constructs and to determine a fitness function for each construct of the population by a high throughput screening process and an executor to execute a genetic algorithm on the first population to produce a generation that defines a second population of the materials.